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EXAMINER	
PATEL, JAGDISH	

ART UNIT	PAPER NUMBER
3624	

DATE MAILED: 01/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/651,301	FRIESEN ET AL.	
	Examiner	Art Unit	
	JAGDISH PATEL	3624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 October 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *22 and 34-102* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *22 and 34-102* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This communication is in response to amendment filed 10/4/2004.

Response to Amendment

2. claim 22 and renumbered claims 34-102 are currently pending. Claims 22 and 34-102 have been amended per request.

Response to Arguments

3. Applicant's arguments regarding rejection of claims under 35 USC 101 filed 10/4/2004 have been fully considered but they are not persuasive. Previously the claims have been rejected under 35 USC 101 for the claims not being within technological art. There was no allegation of the claims being not being useful or not directed to a useful, concrete and tangible result. The claims in the present form fail to place them within the technological art because the recitation of technology i.e. "computer based method " only occur in the preamble and has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are

able to stand alone. See In re Hirao, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and Kropa v. Robie, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). (see 35 USC 101 rejection reproduced below)

4. Applicant's arguments concerning rejection of claims 34-43, 50-52 and 64-68 over Nevo and Marshall references are not persuasive.

5. Contrary to Applicant's argument Nero shows on Fig. 5, a value axis (Security Index Value). On this values along this value axis are labeled 83 and 85 are associated with at least two products (any specified stocks or stock whose performance is being monitored, in the Figure these products are identified as IBM and HP).

Accordingly rejections of claims 34-43, 50-52 and 64-68 under prior references of Nevo and Marshall are maintained.

6. Applicant's arguments concerning rejection of claims 22, 44-49, 53-63 and 69-102 under prior references of Nevo and Marshall are persuasive and have been withdrawn.

Claim Rejections - 35 USC § 101

7. Claims 22 and 34-102 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. (claims are not within technological arts)

As an initial matter, the United States Constitution under Art. I, §8, cl. 8 gave Congress the power to "[p]romote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries". In carrying out this power, Congress authorized under 35 U.S.C. §101 a grant of a patent to "[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition or matter, or any new and useful improvement

thereof." Therefore, a fundamental premise is that a patent is a statutorily created vehicle for Congress to confer an exclusive right to the inventors for "inventions" that promote the progress of "science and the useful arts". The phrase "technological arts" has been created and used by the courts to offer another view of the term "useful arts". See In re Musgrave, 167 USPQ (BNA) 280 (CCPA 1970). Hence, the first test of whether an invention is eligible for a patent is to determine if the invention is within the "technological arts".

Further, despite the express language of §101, several judicially created exceptions have been established to exclude certain subject matter as being patentable subject matter covered by §101. These exceptions include "laws of nature", "natural phenomena", and "abstract ideas". See Diamond v. Diehr, 450, U.S. 175, 185, 209 USPQ (BNA) 1, 7 (1981). However, courts have found that even if an invention incorporates abstract ideas, such as mathematical algorithms, the invention may nevertheless be statutory subject matter if the invention as a whole produces a "useful, concrete and tangible result." See State Street Bank & Trust Co. v. Signature Financial Group, Inc. 149 F.3d 1368, 1973, 47 USPQ2d (BNA) 1596 (Fed. Cir. 1998).

This "two prong" test was evident when the Court of Customs and Patent Appeals (CCPA) decided an appeal from the Board of Patent Appeals and Interferences (BPAI). See In re Toma, 197 USPQ (BNA) 852 (CCPA 1978). In Toma, the court held that the recited mathematical algorithm did not render the claim as a whole non-statutory using the Freeman-Walter-Abele test as applied to Gottschalk v. Benson, 409 U.S. 63, 175 USPQ (BNA) 673 (1972).

Additionally, the court decided separately on the issue of the "technological arts". The court developed a "technological arts" analysis:

The "technological" or "useful" arts inquiry must focus on whether the claimed subject matter...is statutory, not on whether the product of the claimed subject matter...is statutory, not on whether the prior art which the claimed subject matter purports to replace...is statutory, and not on whether the claimed subject matter is presently perceived to be an improvement over the prior art, e.g., whether it "enhances" the operation of a machine. In re Toma at 857.

In Toma, the claimed invention was a computer program for translating a source human language (e.g., Russian) into a target human language (e.g., English). The court found that the claimed computer implemented process was within the "technological art" because the claimed invention was an operation being performed by a computer within a computer.

The decision in State Street Bank & Trust Co. v. Signature Financial Group, Inc. never addressed this prong of the test. In State Street Bank & Trust Co., the court found that the "mathematical exception" using the Freeman-Walter-Abele test has little, if any, application to determining the presence of statutory subject matter but rather, statutory subject matter should be based on whether the operation produces a "useful, concrete and tangible result". See State Street Bank & Trust Co. at 1374. Furthermore, the court found that there was no "business method exception" since the court decisions that purported to create such exceptions were based on novelty or lack of enablement issues and not on statutory grounds. Therefore, the court

held that "[w]hether the patent's claims are too broad to be patentable is not to be judged under °101, but rather under §§102, 103 and 112." See State Street Bank & Trust Co. at 1377. Both of these analysis goes towards whether the claimed invention is non-statutory because of the presence of an abstract idea. Indeed, State Street abolished the Freeman-Walter-Abele test used in Toma. However, State Street never addressed the second part of the analysis, i.e., the "technological arts" test established in Toma because the invention in State Street (i.e., a computerized system for determining the year-end income, expense, and capital gain or loss for the portfolio) was already determined to be within the technological arts under the Toma test. This dichotomy has been recently acknowledged by the Board of Patent Appeals and Interferences (BPAI) in affirming a §101 rejection finding the claimed invention to be non-statutory. See Ex parte Bowman, 61 USPQ2d (BNA) 1669 (BdPatApp&Int 2001).

In the present application, Claims 22 and 34-102 have no connection to the technological arts. None of the steps indicate any connection to a computer or technology. As an example, steps of displaying in claim 22 and 34-102 are interpreted as manually displaying data pertinent to trading goods on a multidimensional space using a predefined coordinate system for reference. Broadly interpreted, such representation of trading data may be accomplished without technological implements. It is noted that mere recitation of technological art in the preamble (in the instant claims 22

and 34 reciting "electronic trading system" and "trading ...electronically" respectively, without any technological implement recited in the claim limitations that support the preamble recitation of technology leads to interpretation that these steps and therefore the entire claimed invention could be performed manually. Similarly independent claim 58 and dependent claims therefrom fail to positively recite technological means such as a digital processor (or a computer) to implement the method steps of the claims that would render the claim(s) within technological arts. Therefore, the claims are analyzed as being not within technological arts and hence directed towards non-statutory subject matter.

To overcome this rejection the Examiner recommends that Applicant amend the claims to better clarify which of the steps are being performed within the technological arts, such as the process of the method performed based on application of a computer processor appropriate within the scope of the disclosure.

Claim Rejections - 35 USC § 102

8. Claims 34-35, 37, 40-42, 52 and 64-68 are rejected under 35 U.S.C. 102(b) as being anticipated by Nevo et al. (US 5,946,666)(Nevo).

Per claims 34 and 35: Nevo teaches a method for displaying transactional information relating to the trading of at least two products electronically, comprising:

Generating a value axis wherein values along the axis represent values associated with the at least two products;

(see Fig. 5, value axis is shown on the right hand vertical column(s), refer to col. 13 L 13-25 for explanation)

displaying indicators representing orders for at least two products relative to the value axis (see col. 13 L 13-25 for explanation..ask and bid prices).

Per claim 37 Nevo discloses that the value axis represent prices (bids) associated with individual securities (see Fig. 5).

Per claim 40 Nevo discloses locating indicator relative to the value axis based upon a price of the order

(Fig. 5, ..current trade value)

Per claim 41 Nevo discloses indicators for at least two products are displayed in a single window (see Fig. 5, security performance indicators 83, 84, 85).

Per claim 42 Nevo discloses indicators comprise icons (col. 12 L 29-42, see icons 72).

Claims 64: indicators are base in ..data feed ..updated based on the data feed (see Fig. 1 sensors 12 are data feeds and displayed indicators are updated based on the data feeds 12, col. 5 L 61+).

Claim 65: displaying values along the value axis (see Fig. 5 and corresponding discussion at col. 13 L 13+).

Claims 66-67: each indicator represents individual orders..plurality of orders (col. 13 L 13+ These values will include current trade value..ask and bid values (other values may be included at a later stage).

Claim 68: wherein the products are semi-fungible, fungible or non-fungible (see col. 4 L 1-12 ..stock index value..).

Claim 52: placing an order on behalf of as user for one of the at least two products and updating the display of indicators to include the order (see Figure 5 which include display of securities monitoring which inherently is in response to an order placed for the securities)

Claim Rejections - 35 USC § 103

9. Claims 36, 38 and 39 are rejected under35 USC 103(a) as being unpatentable over Nevo et al. and further in view of Marshall.

Claim 36: Nevo fails to disclose the step of visually distinguishing indicators that represent bids from indicators that represent offers.

However Marshall teaches depicting visually distinguishing market indicators as recited (see claim 22 analysis and relevant text of Marshall).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Nevo to visually distinguishing market indicators because it would allow an user to discern and accurately perceive the market indicators to make trading decisions.

Per claims 38 and 39: Nevo fails to teach that the values along the value axis represent volatility or unifying characteristics. However, both volatility and unifying characteristics of two (financial) products are old and well-known parameters. For example, Marshall teaches monitoring of any category of financial information including price or volatility (see col. 11 L 29-45) and unifying characteristics of options such as price of underlying security well known to option traders.

See claim 36 analysis for motivation statement.

10. Claims 43 and 50-51 are rejected under35 USC 103(a) as being unpatentable over Nevo.

Per claim 43 Nevo fails to teach that the icons are sized according to a quantity value.

Official Notice is taken that selecting size of an icon according to the magnitude of underlying value of a parameter represented by the icon is old and well known, for example, video graphic shows different size icon to signify relative

magnitude of the underlying value.

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to size the icons shown in Nevo according to a quantity value such as volume, price change, order size etc. in order to improve the recognition of the information displayed.

Claims 50-51 are similarly analyzed as per claim 43.

Conclusion

1. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAGDISH PATEL whose telephone number is (703)308-7837. The examiner can normally be reached on 800AM-600PM M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vincent Millin can be reached on (703)308-1065. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jagdish N. Patel
(Primary Examiner, AU 3624)
01/10/05